Oct. 10, 1933. A. J. TANNER 1,929,615

PACKING AND DISPLAY CONTAINER FOR MERCHANDISE

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FIG. 1.

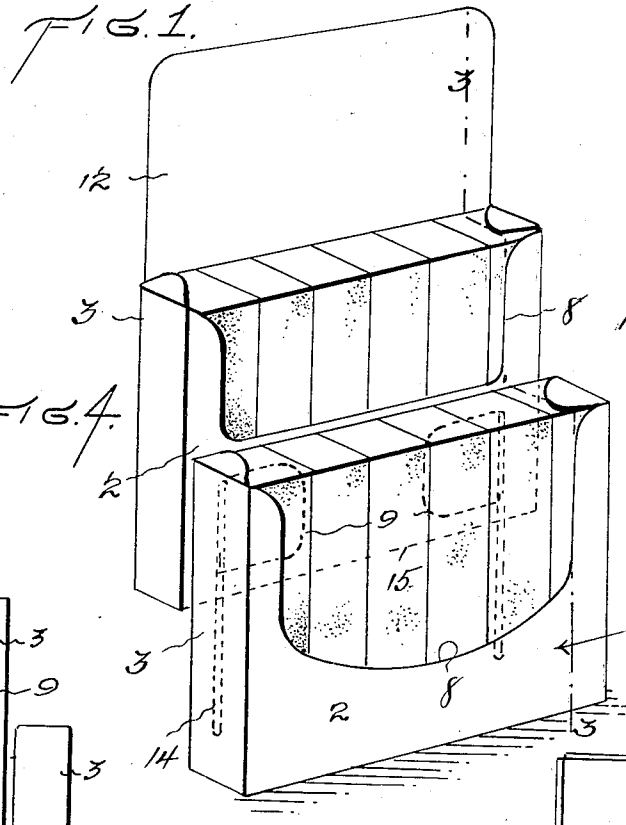


FIG. 4.

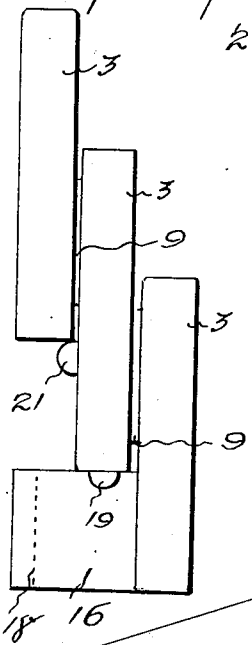


FIG. 2.

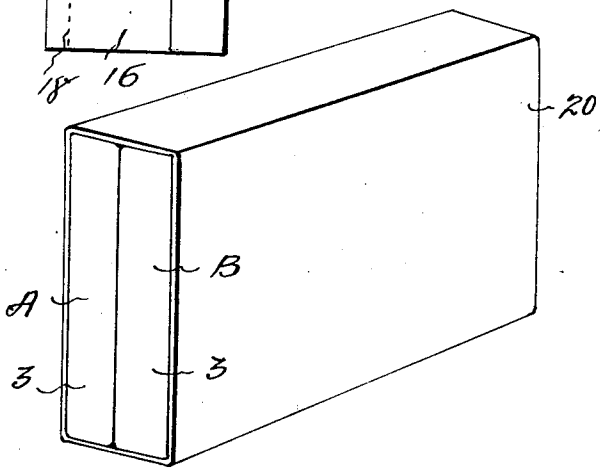
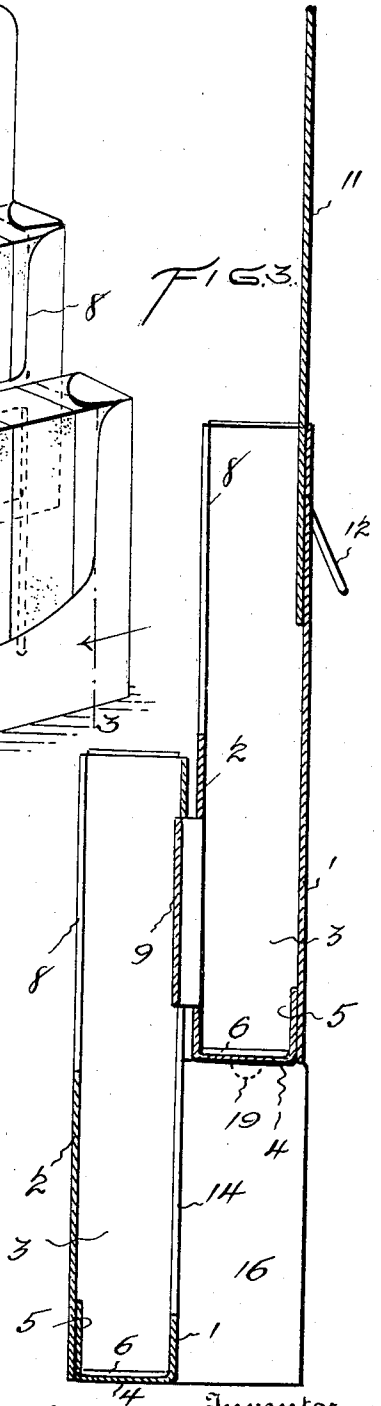


FIG. 3.



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FIG. 5.

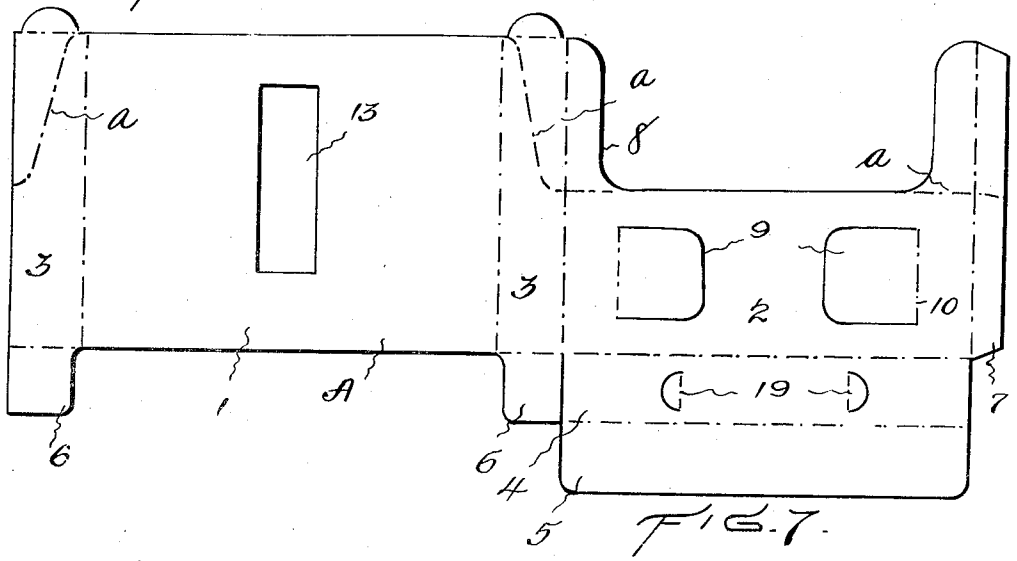


FIG. 6.

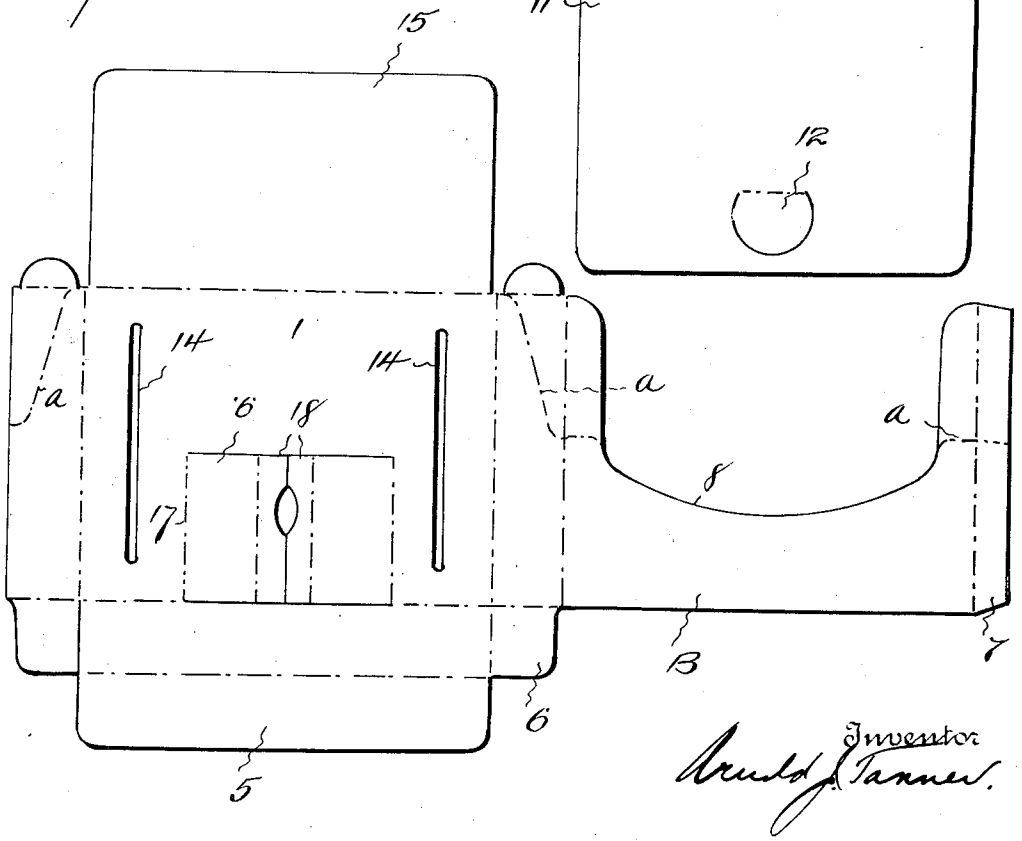


FIG. 7.

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FIG. 8.

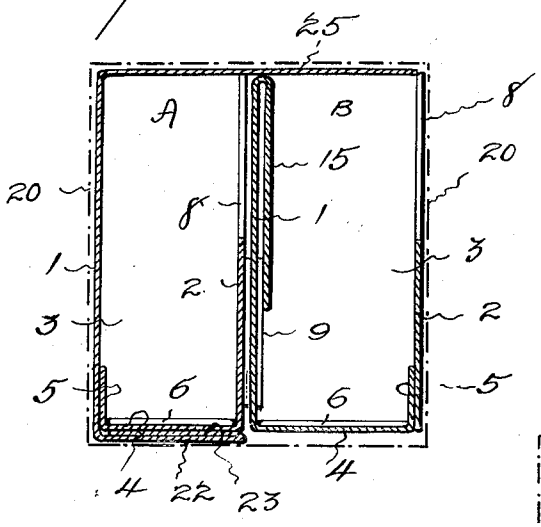


FIG. 9.

FIG. 10.

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UNITED STATES PATENT OFFICE

1,929,615

PACKING AND DISPLAY CONTAINER FOR MERCHANDISE

Arnold J. Tanner, North Haven, Conn.

Application January 30, 1931. Serial No. 512,308

6 Claims. (Cl. 206—44)

The present invention has general relation to packing and display boxes for merchandise and particularly relates to a type of box known in the trade as a "Tier" box. Heretofore with boxes of this kind, the merchandise is packed in separate containing sections hinged or otherwise inseparably or separably joined totgether so that the relative positions of said sections may be changed. For the purpose of packing, the sections are placed end to end and when set up for display said sections are arranged one behind the other with the rear section elevated above the front section so as to produce a tier-like effect. In certain types of tier boxes, said sections are hinged together by an inseparable connection so that one section cannot be moved away from the other without tearing said connection. It has also been proposed to construct tier boxes of separable sections so that the sections may be freely separated one from the other to permit shipping in a package wherein the sections are packed one behind the other on the same level.

Still another type of tier box has previously been proposed in which the containing sections slide or telescope one within the other so that the inner section may be raised to a plane higher than that of the outer section and thereby produce a tier-like effect.

It is the purpose of the present invention to provide useful improvements in boxes of the type referred to so as to provide an efficient box simple both in construction and operation and with this invention certain disadvantages heretofore present in tier boxes are sought to be obviated.

In carrying out the present invention, the improved container is composed of two or more sections inseparably united together by means which can only be separated by tearing the connection or by emptying the box and then disassembling the same. The sections of this improved box are located one behind the other, that is, the rear section is behind the section in front thereof and these sections are so united that the rear section can be raised to a plane higher than that of the front section so as to produce a tier-like effect. The connection between the two boxes allows of a relative sliding movement so that the sections may be placed into the aforesaid raised position. When the rear section is in its elevated position, it must be supported by an easel which is provided with the improvements hereinafter described.

The improved construction, it will be understood, permits the packing of the sections into the smallest possible compass one behind the other on the same level and thereby a more convenient package is provided than when two or more sections are packed end to end, as has been the custom heretofore. The invention also has other features which are of considerable advantage and one material advantage is that when set up for display, the two sections stand in a rigid position. The reason for this is mainly that the two sections are rigidly held together in a perfect parallel relation to each other at all times; therefore the easel or supporting means is not called upon to hold the sections together as in the case where the sections are hinged together when there is a tendency of the sections to assume an angular position relatively to each other for there is a natural inclination of the sections to go back to their original packing position wherein the sections are arranged end to end. This is more or less due to the stiffness of the hinge or piece which connects the sections together.

The novel features of the present invention and the details of construction in connection therewith will be more fully described hereinafter with reference to the accompanying drawings, wherein—

Figure 1 is a perspective view of the improved container in its open or display condition;

Figure 2 is a perspective view showing the container closed and in a condition for shipping or storage;

Figure 3 is an enlarged sectional view taken on line 3—3 of Figure 1 looking in the direction of the indicating arrow;

Figure 4 is a side elevation of the container shown as made up of three containing sections so as to produce a triple tier effect in display;

Figure 5 is a plan view of the blank of which one section of the container is constructed;

Figure 6 is a plan view of another blank of which another or front section of the container is composed;

Figure 7 is a plan view showing a detachable show card which may be employed with the container;

Figure 8 is a central section of a double tier box in the closed position and embodying modifications;

Figure 9 is a central section showing a set-up triple tier box with modifications; and

Figure 10 is a side elevation showing a further modification.

Referring to said drawings, the improved container is composed of two or more sections one of which may be termed the front section which

is the position it assumes when the container is set up for display, and the other section is the rear section. When other sections are employed the additional sections would be intermediate sections and could be substantially the same as the rear section.

The blank for the rear containing section is illustrated in Figure 5 and this blank in general form may be the same as employed in common practice to construct a tube-like receptacle with an open top and a closed bottom. Said blank, designated by the letter A, is divided into parts or sections 1, 2, and 3 forming respectively the rear wall, the front wall, and the side walls of the container section. The section 2 has depending therefrom a folding flap or extension 4 providing the bottom of the container section and said extension 4 has the usual tuck-in flap 5 serving to hold the bottom member in place. The usual tongues 6 are also provided to more effectually close said bottom. The section 2 preferably carries the lap 7 which is arranged to be adhesively secured to the side wall section 3 at the opposite end of the blank. The front wall section 2 is preferably cut away at 8 so that a portion of the goods within the containing section is exposed. The section 2 has cut out therefrom horizontally and oppositely disposed tongues 9 which swing on the creased lines or hinges 10.

The rear containing section of the improved container preferably carries a display card and any one of various known display devices may be employed but for convenience and economy in cutting out the blanks, the separate card 11 composed of the blank illustrated in Figure 7, may be employed. This card is adapted to slide within the rear containing section up against the inner surface of the rear wall so as to be raised into an elevated position where it is held by any suitable added means or by friction alone. In the blanks, as illustrated, means are provided whereby this card may be conveniently drawn to its raised position and this means consists of the tab 12 cut therein which protrudes through the slot 13 cut in the back wall 1 of section A.

The blank B is substantially the same as blank A with the exception that the flap forming the bottom wall is connected to the back wall instead of to the front wall. This opposite arrangement of these flaps permits the blanks to be more economically produced and at the same time the front wall of the rear section and rear wall of the front section are strengthened or rendered more rigid by this arrangement so as to better stand the strain which may be imparted on the connection between the two sections. In section B the rear wall is provided with parallel vertical slots 14 arranged to receive said tongues 9 of the rear section. The blank B also has a folding-in flap 15 which serves the double purpose of covering and keeping the tongues 9 in their engaging position.

An easel or support is required for the rear section when it stands in its elevated position and this easel may be of any conventional form but where it is permissible, to save stock and eliminate the separate operations of forming and fixing the easel, said easel is cut out from the back wall of the front section B. As shown, the easel consists of oppositely swinging pieces 16 connected by hinge 17 to the back wall of the front container section. In order to reinforce or strengthen these easel pieces the ends 18 are foldable so as to stiffen them. The easel made in this particular way, and easels of some other type, have the natural inclination to close so as to prevent the accidental closure of the easel, tabs 19 are cut out of the bottom of the rear section and these tabs, when opened, will operate as stops for the easel to prevent closing thereof.

In the assembling of the improved box, the two container sections are folded and glued in a conventional way, preferably by automatic machine operation, and are delivered in a flat condition. To set up the box it is only necessary to form the open tubular container section by folding the flap 4, tongues 6 and inserting the tuck-in flap 5. The next operation is to pass the tongues 9 on the rear section through the slots 14 in the front section and then insert the flap 15 which brings the tongues 9 to a flat position where they are retained. The card 11 is then located against the back wall of the rear section A and the tongue 12 is engaged in the slot 13. The box is then ready to receive the merchandise and can then be made up into a complete and more efficient shipping package by inserting the display container within a sleeve 20, as shown in Figure 2.

The setting up of the box for display is simple for all that is required is to grasp the tongue 12 and give it an upward pull which raises the display card and at the same time the rear section will slide upward so as to stand in a higher plane than the front section. The easel is then opened to the full extent and the box is then in a condition for display.

In Figure 4 the box is shown as composed of three sections and in this instance the construction is substantially the same as that hereinbefore described with the exception that the front wall of the intermediate section would be provided with the tongues 9 and the rear wall would be provided with the slots such as 14.

The support for a triple tier box may be of any conventional form and it will be noted that when the merchandise is of comparatively little weight, there is no necessity of supporting the rear section because the friction between the connecting tongues 9 and slots 14 may be sufficient to retain the rear-most section in its raised position. Also, if the merchandise is heavy, a vertically disposed tab 21 may be provided in the back wall of an adjacent section so as to engage the bottom of the section immediately behind it and thereby provide a positive support for an intermediate section. It will be understood that the main purpose of the easel is to support the container so that it will stand in a vertical or set up position for display.

Economy is an important factor to consider in the production of paper boxes and therefore in such instances where it is not necessary to completely close the end of the containing sections for shipping purposes, the side and front walls may be reduced as indicated by the broken lines *a* in Figures 5 and 6. This would give a decided saving in stock because in cutting out the same, the blanks for the different sections may be then brought closer together and thereby avoid waste of stock.

Another instance where there is a saving of stock and operations is in the manufacture of the improved container hereinbefore described. This container is constructed entirely of paper board having a prepared surface on one side only and all printing is on said surface.

It is a known fact that in the designing of packing and display boxes for merchandise variable conditions have to be met depending on

the dimensions of the box required and the weight of the merchandise to be packed. The variation in the size of the box frequently requires special designing of the blanks so that they may be produced economically and thereby cut down the cost of the box. Furthermore the box must be designed to reduce as much as possible the operations in the manufacturing, assembling, and setting up of the box. The improved box has been designed to meet these varying conditions and requirements.

Heretofore so-called tier boxes are limited in their use, for example, where the two sections fold together end to end for shipping purposes, the sections must be of the same breadth. With the present design of the box the sections may be of unequal breadth, as shown in Figure 10.

In common practice with previously known tier boxes, the easel for supporting the rear section is carried by the front section for this easel must operate both as a supporting seat for the rear section and also as means to hold the rear section from swinging outwardly on its hinge. The usual practice is to make the easel a separate member which is adhesively fixed to the supporting section and the securing of the easel is an expensive hand operation usually which increases the cost of the box so as to sometimes make the use thereof prohibitive. Other types of easels have been proposed which are integral with the supporting container section but in no case has the supporting easel been made an integral part of the supported container section. The reason for this is that the tendency of the sections to open prevents the use of this form of easel. With the present invention the easel is not needed to hold the containing sections together for it is only required to hold the supported rear section from sliding back to its lower position and to operate as a supporting base for the container. A form of easel is shown in the example previously described which is cut out from the back of the supporting or front section but in the modified form shown in Figures 8 and 9 the easel is formed of an integral piece or extension 22 which depends from the back wall of the rear or supported section. This extension 22 has the side wings 23 which fold inwardly and as this extension and the wings are folded under when the container is in the condition for shipping, when the package is opened the natural tendency of the easel is to open and assume a vertical position. In the latter position the side wings of the easel will fall into position wherein they form a firm seat for the supported section.

The modified form of easel, above described, may be applied for both double or multiple tier boxes and when used for a triple tier box, for example, the front section is provided with a vertically disposed cut out flap 24 opening outwardly so as to form a firm support for an intermediate containing section. It will also be noted, due to the breadth of the three sections when they are in their lowered position for a shipping package, the display card may be, with advantage, composed of an upward extension 25 from the back wall of the rear section which is provided with the usual cut out portion so that when the box is set up for display, said extension is folded and the free end tucked behind the merchandise in the rear section in the usual manner. With this construction, the extension 25 may be folded over and the end thereof tucked into the open front of the front section and thereby, in conjunction with the sliding tie means comprising tongues 9 and slots 14, the several sections of the container are held together to form a safe shipping package without use of the covering sleeve hereinbefore referred to.

Various modifications may be made in carrying out the constructional details of the invention or in the application of the same other than hereinbefore described and it is therefore to be understood any modification coming fairly within the terms of the appended claims shall be covered thereby.

I claim:

1. A container comprising a plurality of containing sections permanently united together side by side by individual means permitting a limited relative sliding movement whereby said sections are placed and retained in an elevated position one behind another to produce a tier-like display effect for the merchandise contained within said sections, the rear section carrying an easel or support whereby the container is supported in a display position, and a section between the others having an individual support therefor carried by an adjacent section.

2. A container comprising a plurality of inseparably connected receptacles or sections arranged side by side so as to lie one in front of the other, all of said sections having back and front walls, the back wall of the front section having a pair of vertically disposed parallel slots formed therein, the front wall of the rear section having oppositely and vertically disposed hinged tongues cut therefrom, and said slots and tongues providing means whereby said receptacles are inseparably joined in a manner to permit limited relative sliding movement thereof.

3. A container comprising a plurality of inseparably connected receptacles or sections arranged side by side so as to lie one in front of the other, all of said sections having back and front walls, the back wall of the front section having a pair of vertically disposed parallel slots formed therein, the front wall of the rear section having oppositely and vertically disposed hinged tongues cut therefrom, said slots and tongues providing means whereby said receptacles are inseparably joined in a manner to permit limited relatively sliding movement thereof, and the back wall of the front section having an inwardly folding flap arranged to cover and retain said tongues in an operative position.

4. A container comprising a plurality of inseparably connected receptacles or sections arranged side by side so as to lie one in front of the other, all of said sections having back and front walls, the back wall of the front section having a pair of vertically disposed parallel slots formed therein, the front wall of the rear section having oppositely and vertically disposed hinged tongues cut therefrom, said slots and tongues providing means whereby said receptacles are inseparably joined in a manner to permit limited relative sliding movement thereof, the back wall of the front section having an inwardly folding flap arranged to cover and retain said tongues in an operative position, and the back wall of said rear section having a depending prolongation with inwardly folding wings arranged to provide a support for the container.

5. A container comprising a plurality of inseparably connected receptacles or sections arranged side by side so as to lie one in front of the other, all of said sections having back and front walls, the back wall of the front section having a pair of vertical parallel slots formed

therein, the front wall of the rear section having vertical oppositely disposed hinged tongues cut therefrom, said slots and tongues providing means whereby said receptacles or sections are inseparably joined in a manner to permit relative sliding movement thereof, the back wall of the front section having an inwardly folding flap arranged to cover and retain said tongues in an operative position, the back wall of said rear section having a depending prolongation with inwardly folding wings arranged to provide an easel for the container, and said easel being foldable to lie under said container when in its inoperative position.

6. A container comprising a plurality of sections constituting a front, rear, and an intermediate section, said sections being separately united together side by side by inseparable connections permitting vertical limited sliding movement of said sections relatively to one another, said rear section having a supporting means therefor comprising an extension therefrom arranged to fold under said rear section when in an inoperative position, and said intermediate section having an individual support therefor comprising a folding flap cut from the rear wall of the front section.

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